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PROJECT 2 ABSTRACT
(1 Page Limit)

A collaborative effort is planned between the Langdon Research Center (LREC) team consisting of Scott Halley, Gary Van Ee (Michigan State University), and Vern Hofman (North Dakota State University) and Dr. Char Hollingsworth (University of Minnesota) and Marcia McMullen (North Dakota State University) to evaluate the effect aerial application parameters have on fungicide application for FHB control on HRSW. The LREC team will conduct a study at a northern Red River Valley location and evaluate the effect of several aerial spray application technology parameters to determine their effect on the efficacy of Folicur for control of FHB. In addition to assessment of the parameters by measuring FHB, yield, test weight, protein, and deoxynivalenol concentration, the LREC will document the effect of the application technology parameters qualitatively by assessing the spray deposition on water sensitive cards and quantitatively by indexing the amount of spray deposited on the wheat heads.

The ground application study will provide additional baseline standards for several of the application technologies currently being used for FHB control. This trial will expand on studies conducted in 2004 at Langdon Research Extension Center (LREC). Spray system studies will be conducted comparing a basis for new spray technologies including, rotary atomizers, air directed sprays, air shear and controlled drop formation. Additional studies will evaluate several application parameters including spray droplet size, nozzle orientation, spray volume, and new nozzle technologies that can be easily adjusted or modified by applicators that may improve fungicide application for control of FHB and is currently available on commercial equipment. Assessments will also determine efficacy of fungicide among different rates of Bayer experimental JAU 6476 on barley.